SHINYBOW™ USA
MULTIMEDIA AUDIO AND VISUAL

1x8 HDMI DISTRIBUTION AMPLIFIER
INSTRUCTION MANUAL

MODEL : SB-5658p
1x8 HDMI DISTRIBUTION AMPLIFIER

HDMI DISTRIBUTION AMPLIFIER Series

Thank you for purchasing the SB-5658p 1x8 HDMI DISTRIBUTION AMPLIFIER. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use this distribution amplifier.

SAFETY INFORMATION

1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the “ON” position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualifier service personnel when:
    A. The power supply cord or the plug has been damaged.
    B. Objects have fallen, or liquid has been spilled into the equipment.
    C. The equipment has been exposed to rain
    D. The equipment does not appear to operate normally, or exhibits a marked change in performance
    E. The equipment has been dropped, or the enclosure damaged.

INTRODUCTION

TABLE OF CONTENTS 3

INTRODUCTION 3

FEATURES&SPECIFICATIONS.....4

FRONT PANEL.....5

REAR PANEL.....6

REMOTE CONTROL.....7

TYPICAL APPLICATION.....8

LIMITED WARRANTY.....9

Input: 1x HDMI

Output: 8x HDMI

Power Input: DC+12V, @1.25A

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK),
NO USER SERVICEABLE PARTS INSIDE,
REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

WARNING!

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK
DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

This symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operational and maintenance (serving) instructions in the literature accompanying the appliance.

To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent electric shock, match wide blade of plug to wide slot, fully insert.

INTRODUCTION

The SB-5658p is high quality HDMI distribution amplifier, HD high performance designed to distribution HDMI signal. Providing I/O as following:

1x input : 1x HDMI (Digital Video-TMDS and Audio)
8x outputs : 8x HDMI (Digital Video-TMDS and Audio)

Automatic input/output HD signals detection:

PC monitor from VGA to UXGA
HDMI 480i To 1080p
DVI 480i To 1080p

The distributor support data rates up to 2.25 Gbps. And enable 1080p HDMI formats and UXGA DVI resolution (1920x1200) to LCD and Plasma display applications. Auto scan function software is built-in to extend HDMI signal for long distance. This product is certified as being fully HDMI and HDCP compliant. This product is also RoHS, CE, FCC compliant. Support high HDMI (HDCP) source to multiple HDMI (HDCP) displays, LCD monitors or HD projectors.

Supplied Accessories

(1) 1 Instruction Manual
(2) 1 SB-5658p Distribution Amplifier
(3) IR Remote control
(4) 19 inch (1 RU) rack mount brackets
(5) RS-232 Software (All Windows Operating Systems)
(6) 1 Power Supply 12VDC, Universal Type 50/60Hz, 100-230 VAC

Safety Notice!
To prevent damage to your television equipment use only the supplied
AC Adaptor and make the power connections to your television

FEATURES & SPECIFICATIONS

FEATURES

- Support 1x8 HDMI Distribution Amplifier
- I/O Signals : HDMI with HDCP Digital Video and Digital Audio (PCM)
- HDMI and HDCP compliant
- Support link speeds of up to 2.25 Gbps (link clock rate of 225 MHZ)
- Support wide range of PC resolutions from XGA to UXGA 1600x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i & 1080p
- Compatible with all HDMI devices, PC monitors, Plasma TV display and HDTV
- Support Digital Video TMDS formats in Deep Color 12bits
- Support colour depth of up to 36 bits and ensures robust transmission of high-quality uncompressed video content, along with state-of-the-art uncompressed and set top boxes.
- Bi-direction colour space conversion(SCS) between RGB and YCBCR color spaces with programmable coefficients.
- Auto-Scan input and outputs status via LED display on front panel
- Control by Selection buttons on front panel and use IR Remote Controller
- Support desktop with Ear mount and 19 inch Rack mountable type panel
- Power supply DC12Volt, Universal Type switch 100~230VAC, 50/60Hz

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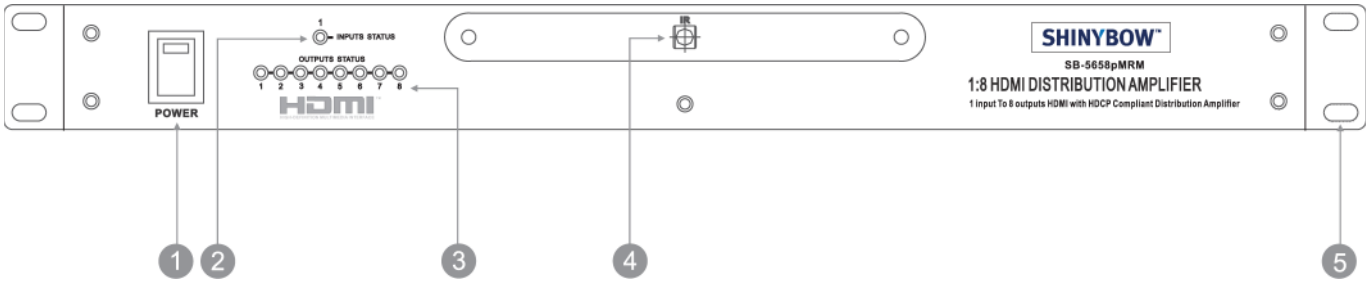
SPECIFICATIONS

- **Type of Distributor:** 1x8 HDMI Distribution Amplifier
- **Signal Supports:** HDMI Standard, DVI and HDCP Compliant
- **Video Supported:** 1080p HDMI formats 1920x1200 and DVI UXGA HD resolutions
- **Audio Supported:** DTS-HD Master Audio, Dolby True -HD & Dolby Digital Plus
- **Type of Signal:** TMDS Digital Video PCM Digital Audio
- **Compliant with HDMI standard:** HDMI and HDCP
- **HDTV Support:** 1080p HDMI formats and UXGA 1600x1200 resolution
- **Controls:** IR Remote and IR Extender (Distance Maximum 1000 ft (300M))
- **Data Rates:** 250Mbps to 2.25 Gbps
- **Pixel clocks:** 250Mbps to 2.25 Gbps. Pixel clocks: 25M Hz to 225 MHz
- **HDMI Cable Distance:** 30ft (10 M) at 2.25Gbps
- **Various video input interface supporting digital video standards such as:**
  - RGB/YCBCR : 24/30/36-bits
  - YCBCR : 8/10/12/16/20/24-bits
  - Double data rate interface for RGB/YCBCR : 12/15/18-bits
- **Infrared frequency:** 38KHz
- **Regulatory Approvals:** CE, FCC, RoHS (2002/95/EC)
- **Dimensions (WxDxH):** 19 x 7.87 x 1.75 in (482mm x 200mm x 44mm)
- **Net Weight (Unit Only):** 4.08 lbs / 2.45 Kgs
- **Power Supply:** DC12V/1A~2A (Full load Consumption Maximum 1.25A)

As product improvements are continuous, specifications are subject to change without notice.

FRONT PANEL

FRONT PANEL



1 POWER SWITCH

The power switch turns the unit on and off. The LED will illuminate red to indicate that the switcher is ON and is receiving power

2 SOURCE DEVICE STATUS DISPLAY

Source 1 to LED illuminates blue to indicate that a video source is present on that input.

3 SOURCE DEVICE STATUS DISPLAY

Channel 1-8 show by LED display.

4 IR SENSOR

The IR sensor receives IR commands from the supplied remote controller.

5 19 INCH EAR MOUNT PAIR

19 inch (1 RU) rack mount brackets

CONNECTING THE HARDWARE

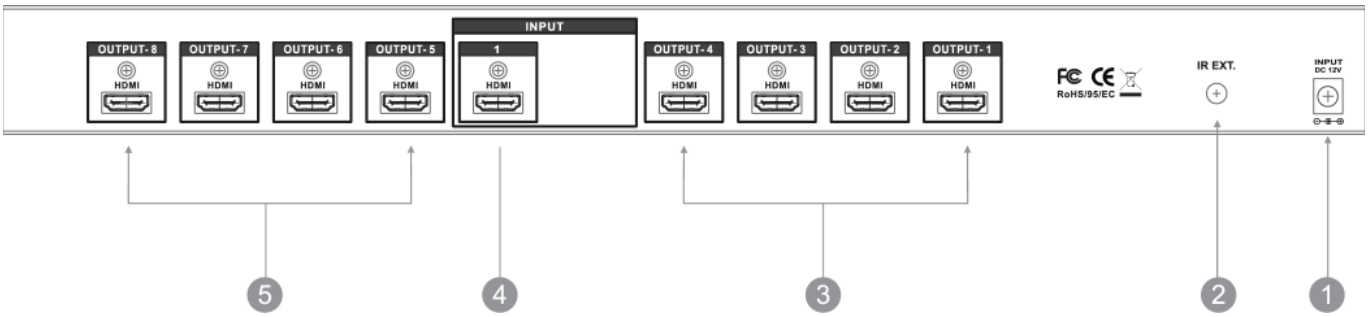
Please study the panel drawings below and become familiar with the signal input-output, Power requirements plus any controls present.

Before using the distributor, please take the time to make certain that the device you wish to connect to its inputs is functioning properly in all respects. Verify that the video and audio signals are present and are being displayed properly on a suitable device.

If all is well connect the appropriate cables between the output of the device you wish to distribute to output(s) of the distributor to the carious devices you wish to feed a signal to. Lastly, connect the AC to DC adaptor, connect the DC connector to the distributor first and then plug the adaptor into a functional AC outlet.

REAR PANEL

REAR PANEL



1 DC POWER INLET

The distributor is fitted with a DC power plug-park input connector. Please ensure that the plug-park used is of an approved type and is of sufficient current carrying capacity with the correct voltage and connector polarity. 12Volt DC power supply 2A Max.

Power Jack:
DC Jack - Inner OD ⦰ 2.1mm (+)
Outside OD ⦰ 5.5mm (GND)
Power input - 12VDC, 2A

2 IR EXTENDER CONTROL

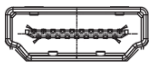
Support one of IR Extender. Extend distance maximum 1000 ft

IR Extender Jack:
Female Jack - inner OD (/) 3.5 mm

4 INPUT - 1x HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.

Input 1 - HDMI Digital Video/Audio, Connector with fix screw



HDMI digital video/audio connector:
HDMI Female connector.

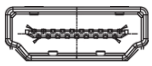
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

3 OUTPUTS - 1,2,3,4,5,6,7,8 HDMI

5

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.

Output 1 - HDMI Digital Video/Audio, Connector with fix screw
Output 2 - HDMI Digital Video/Audio, Connector with fix screw
Output 3 - HDMI Digital Video/Audio, Connector with fix screw
Output 4 - HDMI Digital Video/Audio, Connector with fix screw
Output 5 - HDMI Digital Video/Audio, Connector with fix screw
Output 6 - HDMI Digital Video/Audio, Connector with fix screw
Output 7 - HDMI Digital Video/Audio, Connector with fix screw
Output 8 - HDMI Digital Video/Audio, Connector with fix screw



HDMI digital video/audio connector:
HDMI Female connector.

Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant.

REMOTE CONTROL

Before making any connections to the SB-5658p. Observe the following:

> Ensure the mains voltage supply matches the label on the supplied plug- Pack (+/- 10%)

> Ensure that the power switch is OFF

> Ensure that all system grounds (earth) are connected to a common point.

> Avoid powering equipment within a system from multiple power sources that may be separated by large distances

> Connect all audio video sources and destination equipment

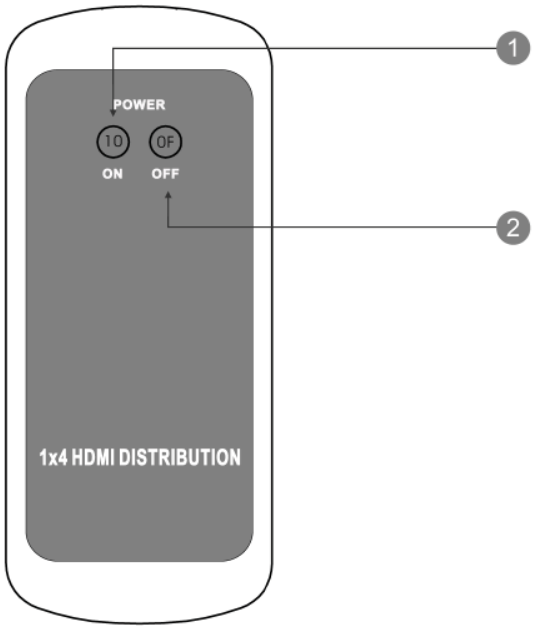
> Power up all source and destination audio-visual sources

> For each destination output select the appropriate input source by using the front panel input 1~8 select buttons. The supplied IR remote control. Or through the RS-232 serial communications port.

> Upon power up the switcher will return to its last used setting before Powered down.

REMOTE CONTROL

1. & 2. SWITCH POWER ON or OFF:
Controller with a power ON and OFF



CONNECTING THE HARDWARE

Please study the panel drawings below and become familiar with the signal input-output, Power requirements plus any controls present.

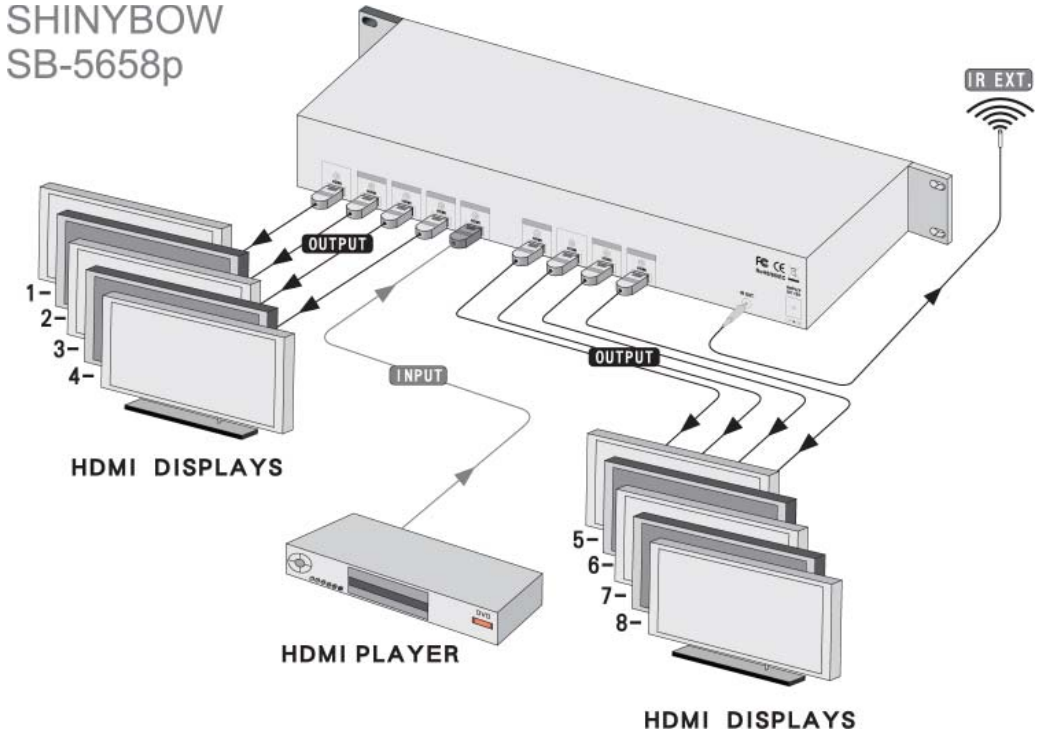
Before using the switcher, please take the time to make certain that the device you wish to connect to its inputs is functioning properly in all respects. Verify that the video and audio signals are present and are being displayed properly on a suitable device.

If all is well connect the appropriate cables between the output of the device you wish to distribute to output(s) of the switcher to the carious devices you wish to feed a signal to. Lastly, connect the AC to DC adaptor, connect the DC connector to the switcher first and then plug the adaptor into a functional AC outlet.

TYPICAL APPLICATION

SHINYBOW SB-5658p

1x HDMI source to 8 x HDMI displays Distribution Amplifier



INSTALLING

CONTROL PORTS:

1. IR EXTENDER - IR Extend with distance 1000 ft (300M) Maximum

INPUT PORT SIGNAL :

1. HDMI - HDMI connector with fix screw

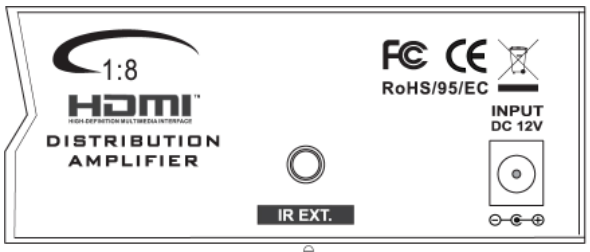
OUTPUTS PORT SIGNALS:

1. HDMI - HDMI connector with fix screw
2. HDMI - HDMI connector with fix screw
3. HDMI - HDMI connector with fix screw
4. HDMI - HDMI connector with fix screw
5. HDMI - HDMI connector with fix screw
6. HDMI - HDMI connector with fix screw
7. HDMI - HDMI connector with fix screw
8. HDMI - HDMI connector with fix screw

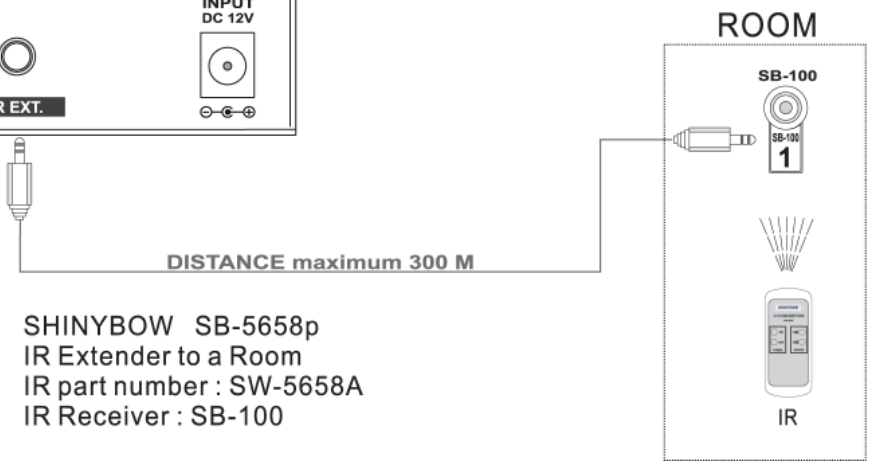
SB-5658p SUPPORTS ONE HDMI INPUT TO EIGHT HDMI DISTRIBUTOR OUTPUTS
SUPPORT IR & IR EXTENDER PORT

TYPICAL APPLICATION

REAR PANEL IR EXTENDER PORT



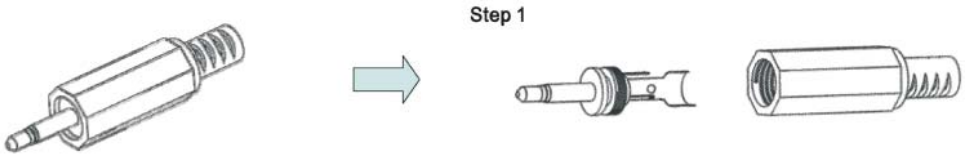
IR EXTENDER CONNECTION

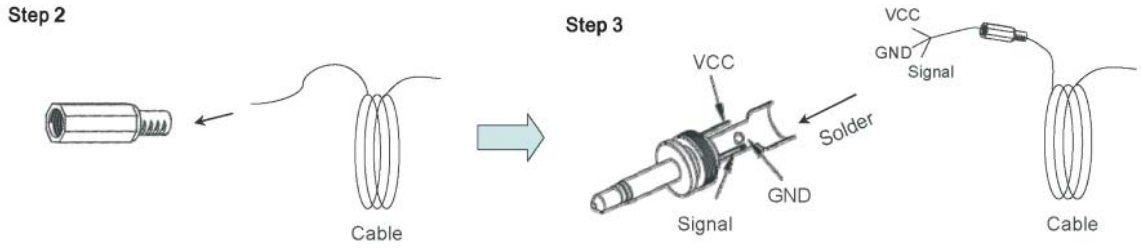


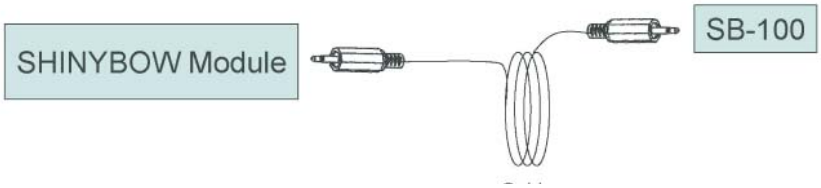
SHINYBOW SB-5658p
IR Extender to a Room
IR part number : SW-5658A
IR Receiver : SB-100

IR EXTENDER PACKAGE:

HOW TO SETUP THE IR EXTENDER COMPONENTS







LIMITED WARRANTY

SHINYBOW WARRANTY

SHINYBOW Technology warrants this product against defects in materials and workman ship for a period of 3 years from the date of purchase. Please be sure to send in your warranty registration card promptly, as the warranty will not be active without registration.

Should this product, in SHINYBOW Technology's opinion, after inspection, prove defective within this warranty period, SHINYBOW Technology, at its option, will repair or replace this product without charge, to whatever extent it shall deem necessary to restore said product to proper operation condition. This does not extend the warranty period.

This warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, and abnormal operating conditions or non-SHINYBOW Technology authorized modification to the product.

If repairs are necessary under the warranty policy, the original purchaser must return the product to local distributor, freight prepaid. After repairs are complete, the product will be returned.

REGULATORY COMPLIANCE

The product complies with the relevant standards for CE, FCC and RoHS approval.

The power Adaptor/Supply has been tested for compliance with UL.CSA and CE standards.

TROUBLESHOOTING

If you experience a <no signal> with this switcher or distributor outputs, first make certain that there is a signal being fed to its inputs from the connected device is acceptable.

Disconnect the cables from the switcher or distributor inputs and connect them directly to an appropriate monitoring device. If you do not see or hear a signal the problem may well be he signal source itself. Also check that the AC outlet you have used to power the switcher or distributor is actually providing power as a wall switch often controls an AC outlet.

Verify that there is power to the device. If the unit is receiving power, the power on indicator light in the power switch should be glowing.

The second most common problem with the switcher or distributor revolves around the cables, Inspect the cables for loose connectors or cable damage such as crushed cable or cables with cuts or nicks. Replace any cable exhibiting these problems.

We recommend using the highest quality cables so that you can achieve the best results. Poor quality cables provide will poor quality signals.

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